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10/528,723	09/19/2005	Masaki Ando	SONY JP 3.3-331	6929
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EXAMINER HERNANDEZ, NELSON D				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,723

Applicant(s)

ANDO ET AL.

Examiner

Nelson D. Hernández

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/808)
- Paper No(s)/Mail Date 3/22/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because in fig. 9, the word "RPOCERSS" (the first step in the flowchart) should be written as "PROCESS"; also the word "THUBNAIL" (in step S43) should be written as "THUMBNAIL". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3, 5, 8, 10, 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, US Patent 5,724,579 in view of Tomat et al., US Patent 6,784,925 B1.**

Regarding claim 1, Suzuki discloses an image processing system, comprising: an image pickup device (Fig. 1) for transferring image data obtained by picking up an image of a subject (Col. 9, line 1 – col. 10, line 8); and an image processing apparatus (Suzuki discloses transmitting the image data to an image processing apparatus; col. 9, lines 49-59; col. 19, line 59 - col. 20, line 48) for obtaining the transferred image data; wherein the image pickup device includes: image pickup means (Fig. 1: 2) for picking up the image of the subject and generating the image data (Col. 9, lines 4-20); generating means (Fig. 1: 16) for generating representative image data (subordinate image) representing the image data generated by the image pickup means (Col. 9, lines 4-59; col. 13, line 1 – col. 14, line 54); and supplying means (Fig. 1: 19; col. 9, lines 38-59) for

supplying the representative image data and the image data to the image processing apparatus, the representative image data being supplied preferentially before the image data (As shown in fig. 36, the image pickup device transmit the subordinate data to a receiving side (the other image processing apparatus) (see step S201) the in the receiving side, a selection is made using the subordinate image data to request a frame the main image (Step S303) and after receiving the request of the main image , the image pickup device sends the main image data to the receiving side; col. 19, line 63 – col. 20, line 29); and the image processing apparatus includes: obtaining means for obtaining the representative image data and the image data supplied from the image pickup device (Suzuki discloses that the image processing apparatus includes obtaining means for obtaining the image data supplied from the image pickup device by teaching that the receiving side receives the image and the subordinate image from the image pickup device; col. 9, lines 49-59; col. 19, line 59 - col. 20, line 48); displaying means for displaying the representative image data obtained by the obtaining means (Suzuki discloses that the image processing apparatus includes by teaching that the image is reproduced for selection and after receiving the main image; see fig. 36: S301; fig. 37 steps; col. 19, line 59 - col. 20, line 48) (col. 9, lines 49-59; col. 13, line 1 – col. 14, line 54; col. 19, line 59 - col. 20, line 48).

Suzuki does not explicitly disclose that the image processing apparatus includes storing means for storing the representative image data and the image data obtained by the obtaining means in association with each other.

However, Tomat et al. discloses a the concept of having an image processing device (Fig. 1: 1) receiving a plurality of images and related image data from a camera (Fig. 1: 14) wherein the image processing device receives the image data and related data (thumbnails) (As shown in fig. 4, the thumbnails are received (step S407) and the fill-resolution images are received (step 409)), wherein said related image data (thumbnails) is stored in association with the image data (full-resolution images) in the same file (as shown in fig. 13, the user has the option of selecting to store the images and the thumbnails in the same file; col. 11, line 1 – col. 12, line 20).

Therefore, taking the combined teaching of Suzuki in view of Tomat et al. as a whole, it would have been obvious to one of an ordinary skill in the art to apply the teaching of storing the received image data in association with the received thumbnails in the storage device as taught in Tomat et al. to modify the teaching of Suzuki to include a storing means for storing the representative image data and the image data obtained by the obtaining means in association with each other. The motivation to do so would have been to provide a user interface that would allow said user to display a thumbnail image corresponding to a system object selected in the first area, to retrieve image information related to said thumbnail and to provide a simple and intelligent manipulation of data files produced by a digital camera as suggested by Tomat et al. (Col. 3, lines 1-27).

Regarding claim 3, limitations have been discussed and analyzed in claim 1.

Regarding claim 5, limitations have been discussed and analyzed in claim 1.

Regarding claim 8, claim 8 is a method claim of the apparatus in claim 3.

Limitations have been discussed and analyzed in claim 1.

Regarding claim 10, limitations have been discussed and analyzed in claim 1.

Regarding claim 13, limitations have been discussed and analyzed in claim 1.

Furthermore, Tomat et al. discloses the use of computer software that is stored in a computer to control the transmission of image data and related image data from the camera to the computer (Col. 5, line 38 – col. 6, line 57; col. 11, line 1 – col. 12, line 20).

Regarding claim 15, limitations have been discussed and analyzed in claim 1.

Regarding claim 17, limitations have been discussed and analyzed in claim 1.

5. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, US Patent 5,724,579 in view of Tanaka, US Patent 6,957,040 B1 and further in view of Tomat et al., US Patent 6,784,925 B1.

Regarding claim 2, Suzuki discloses an image processing system, comprising: an image pickup device (Fig. 1) for transferring image data obtained by picking up an image of a subject (Col. 9, line 1 – col. 10, line 8); and an image processing apparatus (Suzuki discloses transmitting the image data to an image processing apparatus; col. 9, lines 49-59; col. 19, line 59 - col. 20, line 48) for obtaining said the image transferred from the image pickup device; wherein the image pickup device includes: image pickup means (Fig. 1: 2) for picking up the image of the subject and generating the image data (Col. 9, lines 4-20); generating means (Fig. 1: 16) for generating representative image (subordinate image) data representing the image data generated by the image pickup

means (Col. 9, lines 4-59; col. 13, line 1 – col. 14, line 54); and first supplying means (Fig. 1: 19; col. 9, lines 38-59) for supplying the representative image data and the image data to the image processing apparatus, the representative image data being supplied preferentially before the image data (As shown in fig. 36, the image pickup device transmit the subordinate data to a receiving side (the other image processing apparatus) (see step S201) the in the receiving side, a selection is made using the subordinate image data to request a frame the main image (Step S303) and after receiving the request of the main image , the image pickup device sends the main image data to the receiving side; col. 19, line 63 – col. 20, line 29); and the image processing apparatus includes: obtaining means for obtaining the representative image data and the image data supplied from the image pickup device (Suzuki discloses that the image processing apparatus includes obtaining means for obtaining the image data supplied from the image pickup device by teaching that the receiving side receives the image and the subordinate image from the image pickup device; col. 9, lines 49-59; col. 19, line 59 - col. 20, line 48); displaying means for displaying the representative image data obtained by the obtaining means (Suzuki discloses that the image processing apparatus includes by teaching that the image is reproduced for selection and after receiving the main image; see fig. 36: S301; fig. 37 steps; col. 19, line 59 - col. 20, line 48) (col. 9, lines 49-59; col. 13, line 1 – col. 14, line 54; col. 19, line 59 - col. 20, line 48).

Suzuki does not explicitly disclose an image managing apparatus for managing the transferred image data; the image managing apparatus including: obtaining means for obtaining the representative image data and the image data supplied from the image

pickup device; managing means for managing the representative image data and the image data obtained by the first obtaining means in association with each other; and supplying means for supplying the representative image data and the image data to the image processing apparatus, the representative image data being supplied preferentially before the image data; wherein the image processing apparatus receives the image data and the related data from the image managing apparatus that is also in communication with the image pickup device; and storing means for storing the representative image data and the image data obtained by the second obtaining means in association with each other.

However, the concept of having a Tanaka discloses an image communication system comprising a camera (1A as shown in fig. 1) that transmit image data to another camera (1B as shown in fig. 1), wherein the camera 1A send related image data to the other camera 1B using a telephone 40A that is connected to a server in a network (the telephones 40A and 40B include obtaining means (Fig. 7, items 62 and 64) for obtaining the representative image data and the image data supplied from the image pickup device (col. 8, line 1 – col. 9, line 7); managing means (user interface shown in fig. 5; col. 7, lines 14-67) for managing the representative image data (thumbnails) and the image data obtained by the first obtaining means in association with each other (col. 11, lines 17-67; col. 12, line 46 – col. 13, line 57); and supplying means (Fig. 7, items 62 and 64) for supplying the representative image data and the image data to the image processing apparatus, the representative image data being supplied preferentially before the image data (Tanaka discloses that the camera 1B receives said related

image data through a telephone 40B, and wherein a user of camera 1B and telephone 40B selected a desired image data and based on the request the camera 1A would sent the main image data that is associated with the related image data (Col. 5, lines 3-18; col. 11, lines 17-67; col. 12, line 46 – col. 13, line 57; col. 14, lines 36-45). Tanaka further discloses transmitting the related image data prior to transmitting the image data to from telephone 40A to telephone 40B and storing the received image data in a storage device (Fig. 3: 27) (See figs. 12 and 14; col. 11, lines 17-67; col. 12, line 46 – col. 13, line 57; col. 14, lines 36-45).

Therefore, taking the combined teaching of Suzuki in view of Tanaka as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the teaching of transmitting the image data and the representative data through a telephone in a telephone network to a remote device as disclosed in Tanaka to modify the teaching of Suzuki to have an image managing apparatus for managing the transferred image data; the image managing apparatus including: obtaining means for obtaining the representative image data and the image data supplied from the image pickup device; managing means for managing the representative image data and the image data obtained by the first obtaining means in association with each other; and supplying means for supplying the representative image data and the image data to the image processing apparatus, the representative image data being supplied preferentially before the image data; wherein the image processing apparatus receives the image data and the related data from the image managing apparatus that is also in communication with the image pickup device. The

motivation to do so would have been to improve the operability of the image processing system without sacrificing the portability of a portable telephone set in a case where at least one of transmission and receiving of image data is performed and to allow a user to make the judgment, prior to receiving the image data to be received by the receiving means based on the data transmitted to the portable telephone set as suggested by Tanaka (Col. 1, line 25 – col. 2, line 67).

The combined teaching of Suzuki in view of Tanaka fails to teach storing means for storing the representative image data and the image data obtained by the second obtaining means in association with each other.

However, Tomat et al. discloses a the concept of having an image processing device (Fig. 1: 1) receiving a plurality of images and related image data from a camera (Fig. 1: 14) wherein the image processing device receives the image data and related data (thumbnails) (As shown in fig. 4, the thumbnails are received (step S407) and the fill-resolution images are received (step 409)), wherein said related image data (thumbnails) is stored in association with the image data (full-resolution images) in the same file (as shown in fig. 13, the user has the option of selecting to store the images and the thumbnails in the same file; col. 11, line 1 – col. 12, line 20).

Therefore, taking the combined teaching of Suzuki in view of Tanaka and further in view of Tomat et al. as a whole, it would have been obvious to one of an ordinary skill in the art to apply the teaching of storing the received image data in association with the received thumbnails in the storage device as taught in Tomat et al. to modify the teaching of Suzuki and Tanaka to include a storing means for storing the representative

image data and the image data obtained by the obtaining means in association with each other. The motivation to do so would have been to provide a user interface that would allow said user to display a thumbnail image corresponding to a system object selected in the first area, to retrieve image information related to said thumbnail and to provide a simple and intelligent manipulation of data files produced by a digital camera as suggested by Tomat et al. (Col. 3, lines 1-27).

Regarding claim 16, limitations have been discussed and analyzed in claim 2.

6. Claims 4, 6, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, US Patent 5,724,579 in view of Tomat et al., US Patent 6,784,925 B1 and further in view of Clemens, US Patent 6,833,863 B1.

Regarding claim 4, the combined teaching of Suzuki in view of Tomat et al. teaches that the generating means generates the representative image data representing the image data, and that the supplying means preferentially supplies the said representative image data to the another apparatus before the image data being supplied but fails to teach that when the image pickup means generates new image data while the supplying means is supplying the image data to the another apparatus, the generating means generates new representative image data representing the new image data, and the supplying means preferentially supplies the new said representative image data to the another apparatus before the image data being supplied.

However, Clemens discloses the concept of having a camera (See fig. 2) if while transmitting image data to another apparatus (Computer 12 as shown in fig. 1), capture of an image is detected, the camera would stop transmitting image data (streaming) to the computer and capture the image data and send said image data to the computer and after the new image data is sent, the camera would continue transmitting the previous image data that was being transmitted before requesting the new image (See figs. 7A and 7B; col. 3, line 26 - col. 4, line 63; col. 12, line 37 - col. 13, line 64).

Therefore, taking the combined teaching of Suzuki in view of Tomat et al. and further in view of Clemens as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the concept of interrupting transmission of image signals from a camera to another device when capturing a new image and resume transmission of the image signals after transmission of the new image as taught in Clemens to modify the teaching of capturing image data and creation of representative image data to be transferred to another device in Suzuki and Tomat et al. to have the image pickup device to interrupt the transmission of image data when capturing a new image and transmitting the new image data and/or new representative image data prior to continue transmission of the previously transmitted image data. The motivation to do so would have been to allow the user to capture and receive image data when interesting events occur providing a true dual mode camera as suggested by Clemens (Col. 3, lines 4-24).

Regarding claim 6, limitations have been discussed and analyzed in claim 2.

Regarding claim 9, limitations have been discussed and analyzed in claim 4.

Regarding claim 11, limitations have been discussed and analyzed in claim 2.

7. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki, US Patent 5,724,579 and Tomat et al., US Patent 6,784,925 B1 in view of Clemens, US Patent 6,833,863 B1 and further in view of Peters, US 2003/0226023 A1.

Regarding claim 7, the combined teaching of Suzuki in view of Tomat et al. and further in view of Clemens fails to teach receiving means for receiving a first cryptographic key supplied by the another apparatus; cryptographic key generating means for generating a second cryptographic key for encrypting the image data generated by said image pickup means; first encrypting means for generating first encrypted data by encrypting the image data generated by the image pickup means by using the second cryptographic key; and second encrypting means for generating second encrypted data by encrypting the second cryptographic key by using the first cryptographic key; wherein the related information on the image data is the second encrypted data.

However, Peters discloses a method for deterring theft of media, wherein a first encryption key (public key) is obtained (see page 3, ¶ 0031-0033; page 2, ¶ 0018 and ¶ 0028; this reads as receiving a first key; receiving means is inherent since a receiving means is needed to receive the public key) and image data obtained from a sensor (step 100 as shown in fig. 1) is encrypted using a second generated encryption key (see step 110 as shown in fig. 1; this teaches the use of cryptographic key generating

means; also the use of encrypting means is inherent in Peters by teaching that the image is encrypted using a key; encrypting means is needed to encrypt the image data), then said second key is encrypted using the first encryption key to generate a second encrypted data (public key) (see step 120 as shown in fig. 1; the use of encrypting means to encrypt the second encryption key is inherent in Peters by teaching that the second encryption key is encrypted using another encryption key; encrypting means is needed to encrypt the second encryption key), wherein when accessing the image file an apparatus would check for private key (step 200 as shown in fig. 2), read the image (step 250 as shown in fig. 2) decrypt the first key to use the key that was previously encrypted to decrypt the image (Step 270 as shown in fig. 2) (This reads as using the second encrypted data as related information on the image data) (Page 3, ¶ 0031 – page 4, ¶ 0045).

Therefore, taking the combined teaching of Suzuki and Tomat et al. in view of Clemens and further in view of Peters as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the teaching of protecting image data by encrypting the image data and encrypting the key used to encrypt the image data to modify the teaching of Suzuki, Tomat et al. and Clemens to have receiving means for receiving a first cryptographic key supplied by the another apparatus; cryptographic key generating means for generating a second cryptographic key for encrypting the image data generated by said image pickup means; first encrypting means for generating first encrypted data by encrypting the image data generated by the image pickup means by using the second cryptographic key; and

second encrypting means for generating second encrypted data by encrypting the second cryptographic key by using the first cryptographic key; wherein the related information on the image data is the second encrypted data. The motivation to do so would have been to provide theft deterrent techniques for the image device, provide techniques for making the output of a stolen media recording device undesirable and/or unusable, and to provide techniques for encrypting recorded media files in a lightweight manner as suggested by Peters (Page 1, ¶ 0008-0010).

Regarding claim 12, limitations have been discussed and analyzed in claim 7.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernández whose telephone number is (571)272-7311. The examiner can normally be reached on 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernández
Examiner
Art Unit 2622

NDHH
April 8, 2008

/Lin Ye/
Supervisory Patent Examiner, Art Unit 2622